

Original Research Article

Socio-demographic and marital profile of Men who have Sex with Men living in a municipal corporation area of Gujarat, India

Niravkumar Joshi¹, Umed Patel², Pramod Verma³, Dipeshkumar Zalavadiya¹, Chirag Bhola⁴, Ankit Sheth⁵

¹Tutor, Department of Community Medicine, PDU Government Medical College, Rajkot, Gujarat, India

²Associate Professor, Department of Community Medicine, PDU Government Medical College, Rajkot, Gujarat, India

³Professor and Head, Department of Community Medicine, GMERS Medical College, Gandhi nagar, Gujarat, India

⁴SMO (Samastipur, Bihar), NPSP, WHO

⁵Tutor, Department of Community Medicine, GMERS Medical College, Gandhi nagar, Gujarat, India

***Corresponding author**

Niravkumar Joshi

Email: dr.niravbjoshi@gmail.com

Abstract: Unlike heterosexuals who do not have a distinct sexual identity, Men who have Sex with Men (MSM) in India are diverse in their sexual identities. However, what the diverse population of MSM has in common is the fact that all of them have sex with other men. As this population is High Risk core group, the aim of the study was to identify socio-demographic & marital profile of the MSM living in a municipal corporation area of Gujarat. The study was conducted from August 2012 to July 2013. 210 respondents were interviewed at hot spots for meeting of MSM, with help of Out Reach Worker (ORWs) and Peer Educators of the CBO. Mean age of the studied population was 31.96 (SD 9.33) years ranging from 17 years to 60 years. All typologies had similar educational status with about 8.1% illiterate among all respondents. Kothis were having overall better economic status compared to Panthis and Double decker. There was no significant difference in terms of marital status comparing ever married with unmarried among the typologies. Mean age at marriage in ever married MSM was 23.57 (95 % CI: 22.92 – 24.21) years. Age at marriage in ever married MSM shows no significant difference among the typologies. Most number of divorcees was among Kothis (7 out of 8 divorcees). There was significant difference in status of having children; between Panthis and Kothi as well as Panthis and Double decker.

Keywords: Men who have Sex with Men, Kothi, Panthi, Double decker, Socio economic profile

INTRODUCTION

In most societies, heterosexuality is considered “natural” and “normative” and homosexuality is often considered “unnatural” or “abnormal”. However, homosexuality is a fact of life, a social reality that has existed and continues to exist in different cultural and historical periods [1].

Unlike heterosexuals who do not have a distinct sexual identity, Men who have Sex with Men (MSM) in India are diverse in their sexual identities. However, what the diverse population of MSM has in common is the fact that all of them have sex with other men [1].

Thus, MSM practices various form of sexual behaviours like anal, oral etc. with their male partners and also vaginal with their female partners. This specific sexual behaviour exposes them to higher risk of transmission and acquisition of STIs and HIV infection [2].

Moreover, prevalence of HIV and STIs is higher amongst MSM in general & also compared to general population. As per NACO annual report 2012-13, Adult HIV prevalence at national level was 0.27% in 2011 [3], whereas HIV prevalence amongst MSM population in India was 4.43% [3].

As this population is High Risk core group, the aim of the study was to identify socio-demographic and marital profile of the MSM in a municipal corporation area of Gujarat.

MATERIAL AND METHODS

Definitions

MSM – “Men who have sex with men” is the term used to denote all men who have sex with other men as a matter of preference or practice, regardless of their sexual identity or sexual orientation and irrespective of whether they also have sex with women or not. This term does not refer to those men who might

have had sex with other men as part of sexual experimentations or very occasionally depending on special circumstances. This epidemiological term focuses exclusively on sexual practice [4]. The typologies of MSM included were (1) Kothis, (2) Panthis, (3) Double Decker

- A. Kothis (In Gujarati – Koti): A self-identifying label for those males who feminise their behaviours (either to attract “manly” male sexual partners and/or as part of their own gender construction and usually in specific situations and contexts), and who state that they prefer to be sexually penetrated anally and/or orally [5].
- B. Panthis/Giryas (In Gujarati – Gadiyo): A kothi label for any “manly male.” A panthi/giryas is by definition a man who penetrates, whether it is a woman and/or another male. Panthis/Giryas would most likely also be married to women and/or access other females. Their occupations vary across the social class spectrum from rickshaw drivers to businessmen [5].
- C. Double Decker: This refers to persons who get penetrated as well as penetrate, and those who may also have sex with women. Kothis and hijras label those males who both insert and receive during penetrative sexual encounters (anal or oral sex) with other men as Double Deckers. These days, some proportion of such persons also self-identify as Double Deckers. Some equivalent terms used in different States are Double, Dupli Kothi (West Bengal) and DoParatha (Maharashtra) [5].

METHOD

The study was conducted from August 2012 to July 2013, in the Municipal Corporation area in Gujarat state of India. The Municipal Corporation was divided in 3 zones – Central, East and West and had total 23 wards. According to Census 2011, the city had population of 12, 86,995; its urban/metropolitan population was 13, 90,933. The study was conducted with help of the Community Based Organization (CBO) working for MSM in the area. It was having 2 units, as on August 2012, with target population of 1000 MSM each. Approval of Institutional Ethics Committee was obtained prior to beginning of the study. Approval of the CBO was also obtained for the study.

Sample size estimation was done using formula of Sample Size for Finite Population. Thus, for 1608 MSM population registered under the CBO at the beginning of the study in August 2012, estimated sample size calculated was 201. As non-response was expected, 10% non-response rate was added to the

estimated sample size. Thus, final calculated required sample size was 221.

The study was a cross-sectional study, using Systematic Random Sampling method. List of MSM was received from all peer educator of both the unit of CBO. Every 7th MSM was selected as sample, starting from 4th numbered MSM, which was selected randomly out of 7. The specified MSM were contacted with the help of peer educators. Only those who are registered to CBO and provided written consent to take part in the study were included. If specified MSM could not be contacted then the next registered MSM was selected from the same list and contacted for interview.

Pre-tested and semi-structured questionnaire was used for collection of data. Data collection was done at hot spots for meeting of MSM, with help of Out Reach Worker (ORWs) and Peer Educators of the CBO. Written consent was obtained.

Modified Prasad’s Classification with Consumer Price Index Numbers for Industrial Workers for the municipal corporation [6] during January – June 2013 (CPI = 229), during which most of the data was collected, was used for Socio-Economical classification of study respondents.

At the end of targeted number of interviews, non-response was found in 11 respondents so the total collected sample were 210, which were finally analysed. Data entry and analysis was done in Microsoft Office Excel 2007 and Epi info 7 respectively.

RESULTS & DISCUSSION

The analysis includes total respondents as well as distribution as per their typologies.

Socio-demographic profile

In socio-demographic details, mean age of the studied population was 31.96 (SD 9.33) years ranging from 17 years to 60 years. Median age was 30 years. As per National Behaviour Surveillance Survey (BSS) 2006 [7], mean age of MSM was 30 years with median of 29 years. In a study involving 7525 MSM by Lalit Dandona *et al.*; [8], age range was 16-65 years with the median of 27 year. In a study by Maninder Singh Setia *et al.*; [9], it was found that mean (SD) of age of MSM was 23.6 (5.1) years. According to study by Rajaram S *et al.*; [10], mean age of MSM was 27.6 years. Mean age of was 31.5 years (SD: 7.6) as per a paper by Harshal R. Salve *et al.*; [11]. Thus, mean age of the respondents was higher compared to most studies.

In National Behaviour Surveillance Survey (BSS) 2006 [7], 7.7% of MSM in Gujarat were illiterate. In study by Vivian F. Go *et al.*; [12], 16 out of

46 (34.8%) were having education of more than primary level. In HIV Sentinel Surveillance 2008 of Gujarat [13], among MSM 13.8% were illiterate, 24.25% were literate till 5th standard (8.1% in present study), 58.37% had education till 12th standard (63.3% in present study) and 1.62% were graduate and above. According to study in Mumbai [10], 2.1% MSM were illiterate, 1.6% had studied from 1st to 5th class and 77.6% had studied 10+. As per census 2011, 24.07% people of urban population of in the district were illiterate [14]. 23.9% of MSM were illiterate as per paper by Harshal R. Salve *et al.*; [11].

Among 210 respondents, 192 (91.4%) were Hindus while 18 (8.6%) were Muslims. As per Census 2001, in corresponding district, proportion of Muslim population was 9.23% [15]. In study by Rajaram S *et al.*; [10], 61.6% were Hindu, 22.7% were Muslim and 15.4% were Christian in Mumbai.

As given in BSS 2006 [7] report, 14 % of the MSM reside alone in Gujarat. As mentioned in article by Anna Phillips *et al.*; [16], 16.4% of MSM were living alone. Compared to that 21.9% of respondents were residing alone as per this study. Distribution according to Modified Prasad's Classification shows that there was significant difference between the typologies in terms of economic status. Most significant difference was observed between Kothi and Panthis. Although difference between economic status between Kothi and Double decker was not statistical significant, it showed to be having gap. Thus, Kothis were having overall better economic status compared to Panthis and Double decker. (Table 1).

Marital Profile

In BSS 2006 [7], 55.6% MSM were ever married in Gujarat. In this study ever married respondents were 59.1%. In a study by Vivian F. Go *et al.*; [12], 26 out of 46 (56.5%) MSM in Chennai, India were ever married. In a report by Naz foundation International [5], in Hyderabad 75% and 25%, in Bangalore 70% and 30% and in Pondicherry 74% and 26% MSM were unmarried and married respectively. As per study by Lalit Dandona *et al.*; [8], 41.8% were

currently married to a woman, 4.7 % were separated/Divorced and 1.3% were widowed which are 53.3%, 3.8% and 1.0% respectively in current study. There were no separated respondents in the study. In a study by Maninder Singh Setia *et al.*; [9] 77% were never married and 23% were married in Mumbai. In present study, 41.9% of respondents were unmarried. According to Rajaram *et al.*; [10], 39.9% MSM were currently married, 58.4% were never married and in 1.7% cases marriage were dissolved.

There was no significant difference in terms of marital status comparing ever married with unmarried among the typologies. Difference was found only between Panthis and Double decker in terms of marital status.

Comparison of age of unmarried respondents in typologies of MSM shows significant difference. Further analysis shows that there was significant difference between Kothis and Panthis whereas age distribution of unmarried respondents was almost similar.

Age at marriage in ever married MSM shows no significant difference among the typologies. As per BSS 2006 of Gujarat [7], Mean (SD) age at marriage was 21.4 years compared to 23.57 in current study. According to Anna Phillips *et al.*; [16] in Bangalore mean age at marriage was 25.0 years in ever married MSM. In a study in Mumbai [10], it was found that mean age at marriage 23.9 years.

When comparing status of having children or not in those MSM who were married since at least 2 years, it showed that there was significant difference in status of having children; between Panthis and Kothi as well as Panthis and Double decker. It may indicate that less proportion of Panthis might be having active married life compared to Kothis and Double decker. As there were possibilities of other factors playing role related to fertility, social issues etc. and availability of low number of respondent, it cannot be concluded firmly. (Table 2)

Table 1: Socio-economical profile of MSM

Sr. No.	Particulars				
1.	Age Group (In completed years)	Kothi (%) (n=95)	Panthis (%) (n=66)	Double Decker (%) (n=49)	Total (%) (n=210)
	<18	2 (2.1)	1 (1.5)	0 (0.00)	3 (01.4)
	18-25	18 (19.0)	31 (47.0)	13 (26.5)	62 (29.5)
	26-35	42 (44.2)	21 (31.8)	19 (38.8)	82 (39.1)
	36-45	24 (25.3)	9 (13.6)	14 (28.6)	47 (22.4)
	≥46	9 (9.5)	4 (6.1)	3 (6.1)	16 (07.6)
	Mean (SD) (95% CI)	33.37 (9.03) (31.53 – 35.21)	29.14 (9.38) (26.83 – 31.44)	33.04 (9.18) (30.40 – 35.68)	31.96 (9.33) (30.69 – 33.23)
2.	Educational status				
	Illiterate	9 (09.5)	4 (06.1)	4 (06.1)	17 (08.1)
	1 st – 8 th (Primary)	24 (25.3)	19 (28.8)	11 (22.5)	54 (24.7)
	9 th – 10 th (Secondary)	36 (37.9)	23 (34.8)	16 (32.7)	75 (35.7)
	11 th – 12 th (Higher secondary)	7 (07.4)	10 (15.2)	4 (08.2)	21 (10.0)
	Diploma	6 (06.3)	0 (00.0)	2 (04.1)	8 (03.8)
	Graduate and Above	13 (13.7)	10 (15.2)	12 (24.5)	35 (16.7)
3.	Occupation				
	Unskilled work	56 (58.9)	41 (62.1)	25 (51.0)	122 (58.10)
	Skilled work	16 (16.9)	19 (28.8)	18 (36.7)	53 (25.26)
	Related to the CBO	14 (14.7)	0 (0.0)	2 (4.1)	16 (07.62)
	Own business	4 (4.2)	4 (6.1)	0 (0.0)	8 (03.81)
	Student	1 (1.1)	2 (3.0)	2 (4.1)	5 (02.39)
	Retired	2 (2.1)	0 (0.0)	1 (2.0)	3 (01.43)
	Unemployed	2 (2.1)	0 (0.0)	1 (2.0)	3 (01.43)
4.	Religion				
	Hindu	89 (93.7)	59 (89.4)	44 (89.8)	192 (91.4)
	Muslim	6 (06.3)	7 (10.6)	5 (10.2)	18 (08.6)
5.	Current Residential (living) status	Kothi (%) (n=95)	Panthis (%) (n=66)	Double Decker (%) (n=49)	Total (%) (n=210)
	Alone	30 (31.6)	6 (9.1)	10 (20.4)	46 (21.9)
	With family	65 (68.4)	56 (84.8)	37 (75.5)	158 (75.2)
	With friend	0 (0.0)	4 (6.1)	0 (0.0)	4 (01.9)
	With regular male partner	0 (0.0)	0 (0.0)	2 (4.1)	2 (1.0)
6.	Economical Status (As per Modified Prasad's Classification)	Kothi (%) (n=95)	Panthis (%) (n=66)	Double Decker (%) (n=49)	Total (%) (n=210)
	Class I	23 (24.2)	12 (18.2)	11 (22.4)	46 (21.9)
	Class II	36 (37.9)	14 (21.2)	8 (16.3)	58 (27.6)
	Class III	21 (22.1)	26 (39.4)	18 (36.7)	65 (31.0)
	Class IV	13 (13.7)	10 (15.2)	11 (22.4)	34 (16.2)
	Class V	2 (2.1)	4 (6.1)	1 (2.0)	7 (03.3)
	$\chi^2 = 15.727, p = 0.046^*$ Kothi and Panthis: $\chi^2 = 9.822, p=0.044^*$ Kothi and Double decker: $\chi^2 = 9.009, p=0.061$ Panthis and Double decker: $\chi^2 = 2.524, p=0.640$				

* P-value <0.05 is considered significant at 95% confidence interval

Table 2: Marital profile of MSM

Sr. No.	Particulars	Kothi	Panthis	Double Decker	Total
1.	Marital status	(%) (n=95)	(%) (n=66)	(%) (n=49)	(%) (n=210)
	Unmarried	37 (38.9)	35 (53.0)	16 (32.7)	88 (41.9)
	Married	49 (51.6)	31 (47.0)	32 (65.3)	112 (53.3)
	Widower	2 (2.1)	0 (0.0)	0 (0.0)	2 (0.1)
	Divorcee	7 (7.4)	0 (0.0)	1 (2.0)	8 (0.3)
	Comparing Unmarried with Ever married (Including currently married, Widower and Divorcee) $\chi^2 = 5.420, p = 0.067$ Kothi and Panthis: $\chi^2 = 3.124, p = 0.077$ Kothi and Double decker: $\chi^2 = 0.551, p = 0.458$ Panthis and Double decker: $\chi^2 = 4.731, p = 0.030^*$				
2.	Age distribution of unmarried respondent (N=88)	(%) (n=37)	(%) (n=35)	(%) (n=16)	(%) (n=88)
	<18	2 (5.4)	1 (2.9)	0 (0.0)	3 (3.4)
	18-25	12 (32.4)	24 (68.6)	7 (43.8)	43 (48.9)
	26-35	19 (51.4)	8 (22.9)	6 (37.5)	33 (37.5)
	> 35	4 (10.8)	2 (5.7)	3 (18.8)	9 (10.2)
	Mean (SD) (95% CI)	28.51 (6.40) (26.38 – 30.65)	24.71 (5.51) (22.82 – 26.61)	28.38 (7.00) (24.64 – 32.11)	26.98 (6.38) (25.63 – 28.33)
ANOVA: F= 3.906, p = 0.024* Kothi and Panthis: T value: 3.7992, p = 0.032* Kothi and Double decker: T value: 0.1385, p = 1.000 Panthis and Double decker: T value: 3.6607, p = 0.158					
3.	Age at marriage in ever married respondent (In completed years)	(%) (n=58)	(%) (n=31)	(%) (n=33)	(%) (n=122)
	<18 years	1 (1.7)	1 (3.2)	2 (6.1)	4 (3.3)
	18 - 21 years	12 (20.7)	11 (35.5)	10 (30.3)	33 (27.1)
	22 - 25 years	31 (53.4)	11 (35.5)	12 (36.7)	54 (44.3)
	>25 years	14 (24.1)	8 (25.8)	9 (27.8)	31 (25.4)
	Mean (SD) (95% CI)	23.95 (3.32) (23.08 – 24.82)	23.48 (3.68) (22.13 – 24.83)	22.97 (4.09) (21.52 – 24.42)	23.57 (3.62) (22.92 – 24.21)
ANOVA: F= 0.775, p = 0.463 Kothi and Panthis: T value: 0.464, p = 1.000 Kothi and Double decker: T value: 0.979, p = 0.656 Panthis and Double decker: T value: 0.514, p=1.000					
4.	Number of children (Ever married respondents) (N = 122)	(%) (n=58)	(%) (n=31)	(%) (n=33)	(%) (n=122)
	No Child	12 (20.7)	12 (38.7)	4 (12.1)	28 (23.0)
	1 Child	20 (34.5)	7 (22.6)	4 (12.1)	31 (25.4)
	2 Children	15 (25.9)	8 (25.8)	19 (57.6)	42 (34.4)
	>2 Children	11 (19.0)	4 (12.9)	6 (18.2)	21 (17.2)
	Comparing those who have no child with at least 1 child $\chi^2 = 5.420, p = 0.067$ Kothi and Panthis: $\chi^2 = 3.124, p = 0.077$ Kothi and Double decker: $\chi^2 = 0.551, p = 0.458$ Panthis and Double decker: $\chi^2 = 4.731, p = 0.030^*$				
5.	Status of children[§]	(%) (n=39)	(%) (n=24)	(%) (n=29)	(%) (n=92)
	No child	1 (02.56)	8 (33.33)	1 (03.45)	10 (10.87)
	Atleast one child	38 (97.44)	16 (66.67)	28 (96.55)	82 (89.13)
	Fisher's exact test Kothi and Panthis: p = 0.002* Kothi and Double decker: p = 0.99 Panthis and Double decker: p = 0.010*				

* P-value <0.05 is considered significant at 95% confidence interval

§ Married respondents at the time of study (excluding divorce, widower and separated) with at least 2 years of married life

CONCLUSION

The study shows better economic status of Kothi compared to other typologies. In present study, most number of divorcees among all respondents was observed in Kothis (7 out of total 8 divorcees). This might be due to their marriage as family obligation initially that eventually resulted in divorce due to some social issues related to MSM status or behaviour.

STUDY LIMITATIONS

The study population might not be representative of whole MSM community as the respondents were among those who were registered to the CBO.

ACKNOWLEDGEMENT

We are thankful to the CBO for allowing and helping us to carry out the study. We are also thankful to Peer Educators and Out Reach Workers of the CBO for helping us in rapport building with respondents for improving study results. We also acknowledge respondents for participation in the study.

REFERENCES:

1. National AIDS Control Organization, Ministry of Health & Family Welfare, Government of India. Targeted Interventions Under NACP III : Operational Guidelines, Core High risk groups. In.; 2007;1: 439.
2. Boily MC, Baggaley RF, Wang L, Masse B, White RG, Hayes RJ, *et al.*; Heterosexual risk of HIV-1 infection per sexual act: systematic review and meta-analysis of observational studies. *Lancet Infect Dis.* 2009; 9(2): 118-29.
3. Ministry of Health And Family Welfare, Department of AIDS Control, National AIDS Control Organization. Annual Report; 2012-13.
4. National AIDS Control Organization, Ministry of Health & Family Welfare, Government of India. Targeted Interventions under NACP III - Operational Guidelines - Core High risk groups. In.; 2007; 1:24
5. Naz Foundation International. MSM and HIV/AIDS in India; 2004.
6. Labour Bureau, Government of India; Consumer Price Index Numbers (General) for Industrial Workers; Available from: labourbureau.nic.in/indtab.pdf; Accessed on 2016 January 21.
7. National AIDS Control Organisation, Ministry of Health and Family Welfare, Government of India. National Behavioural Surveillance Survey (BSS); 2006.
8. Dandona L, Dandona R, Gutierrez JP, Kumar GA, McPherson S, Bertozzi SM *et al.*; Sex behaviour of men who have sex with men and risk of HIV in Andhra Pradesh, India. *AIDS.* 2005; 19(6): 611-619.
9. Setia M, Lindan C, Jerajani HR, Kumta S, Ekstrand M, Mathur M *et al.*; Men who have sex with men and transgenders in Mumbai, India : An emerging risk group for STIs and HIV. *Indian Journal of Dermatology, Venereology and Leprosy.* 2006; 72(6): 425.
10. Rajaram S, Janet Bradley, Jaychandran AA, DP Singh, Annie James, Catherine Lowndes, *et al.*; Men who have Sex with Men in Mumbai City, Maharashtra : Sexual behaviour and programme exposure. CHARME Working Paper No 15. ; 2010.
11. Salve HR, Rai SK, Kant S, Raj Y, Reddy DC; Demographic and Sexual Behavior Characteristics of Men Who Have Sex with Men (MSM) Registered in a Targeted Intervention (TI) Program in India. *World Journal of AIDS.* 2015; 5: 256-264
12. Vivian F. Go, Aylur K. Srikrishnan, Sivaram S, Murugavel GK, Galai N *et al.*; High HIV Prevalence and Risk Behaviours in Men Who Have Sex With Men in Chennai, India. *J Acquir Immune Defic Syndr.* 2004 ; 35(3).
13. HIV Sentinel Surveillance. , Gujarat State AIDS Control Society; 2008.
14. Census of India, 2011: C-8 Educational Level by Age and Sex for Population Age 7 and Above [Online]; [cited 2016 March 16. Available from: <http://www.censusindia.gov.in/2011census/C-series/C-08/DDW-2400C-08.xlsx>
15. All India Council of Muslim Economical Upliftment. [Online].; 2013 [cited 2013 August 21. Available from: http://www.aicmeu.org/Muslim_Population_Distribution_in_India.htm.
16. Phillips A, Bradley J, Rajaram S, Gurav K, Lowndes C, Anthony J *et al.*; Sexual Behaviour and HIV risk among Men who have Sex with Men in Bangalore, India. , CHARME Working Paper No. 7; 2009.